THE entire elegant FURNITURE contained in THE entire elegant FURNITURE contained in the private residence No. 152 West 21st at. between 7th and 4th ava., will be sold at an tion TO-MORROW (Wedness and 4th ava., will be sold at an tion TO-MORROW (Wedness day), commencing retaining to a residence, will find it in this want of any thing pertaining to a residence, will find it in this want of any thing pertaining to a residence, will find it in this want of any thing pertaining to a residence, will find it in this want of the pertain the perial p

Coal. &t.

PITSTON COAL for MANUFACTURING,
ATRAM and DOMMETIC PURPOSES, by the sargo
The Feneralymonia Coal Company is now delivering its apparior
tobbe of Fitteen Coal at New York, at the following prices:
Lump, 64 30 per tun of 2,240 ft
Ricaner, 64 60 per tun of 2,240 ft
Range, 64 10 per tun of 2,240 ft
Nat, 64 35 per tun of 2,240 ft
Nat, 64 35 per tun of 2,240 ft
Chesnot, 83 36 per tun of 2,240 ft
The Coal is received by deliy texts, and the star at dispetch
given in discharging. Office of the Company, No. 30 ftm. desay, corner of Wall-st.

SEO. H. HOYT. Treasurer.

Paints, Oils, Glass, &t.

BRIDGEWATER PAINT-Warranted to cure D any croitery lesky roof, and the best Paint in market for all cutside work. For sale at the Cempany's Depot, No. 100 Water t

REFINED LARD OIL, for Burning and Machinery: free from rum, burne brightly, does not crust the
chinery: free from rum, burne brightly, does not crust the
chinery: free from rum, burne will. War
tweer Sperm, stands colder weather, and burne well. War
tweer Sperm, stands colder weather, and burne well.

JOHN W. QUINCY, No. 9: William-st.

THE celebrated GRAFTON PAINT, 14 center per pound. Good Boiled Oil, 75 cents per sallon; a good Boiled Oil for roofs and out buildings, 50 cents per sallon; Rosm Ofls at Manufacturers; prices. Also, Torpendine, Varnishes, ac., at No. 113 Maiden-lane, coorner of Pearl-st.

#### Miscellaneons.

WHO USES RYE BREAD WHEN WHEAT WHO USES RYE BREAD WHEN WHEAT BREAD CAN BE HAD!—The great American Beverage, ALTER & WILLES FON'S OLD WHEAT WHISKY, distilled from the celebrated wheat and the medicated waters of the mountains of the Keystone State, highly mollowed and topproved by the hand of time, is not only the most healthy beverage and tonic, but is a sure specific for the prevention and sure of Dyspepsia, and of all derangements of the stomach and lowels. Put up in cases, containing each, one dozen quart bottes, and labeled "Alter & Williston's Old Wheat Wilsky, 1859"—unequased in the world, and sold by unequated in the world, and sold by WILLIAMS & CROSSY. No. 38 Front-st.

### Drean Steamers, &c.

STEAM between NEW-YORK and GLASGOW.

BEDINBURGH, 2,500 tuns, Wm. Canneing, Commander,
NEW-YORK, 2,150 tuns, Robert Craig, Commander,
GLASGOW, 1,500 tuns, John Dancan, Commander.
The Glasgow and New-York Steamship Company intend
alling there he w and powerful steamers from New-York to
Glasgow direct as follows:

Glasgow direct as follows:
FROM REW-YORK.
Glasgow, Wednesday, Sept. 30, 12 noon.
New York. Sept. 19
Hew York, Saturday, Oct. 17.
Edinburgh, Saturday, Oct. 31.
Glasgow....Oct. 31
RATES OF PASSAGE.

GREAT REDUCTION in FARE to EUROPE 

These steamships touch at Havre. Specie detivered in Los den and Paris. For passage or freight apply to D. TOREANCE, Ro. 5 Bowling Green.

FOR LIVERPOOL.—The U. S. Mail steam also BALTIC, J. J. Comsack, Commander, will depart with the United States mails for Kurope positively on SATUR-DAY, Sept. 26, at 12°0 clock m., from her best at the foot of Canal-st. For freight or passage, having unequaled accommendations for elegance and comfort, apply to

EDWARD K. COLLINS, No. 56 Wall-st.

Passagers will please be on board at 11° slock a.m. All left.

EDWARD K. COLLINS, No. 56 Wall-st.
Passengers will please be on board at 11 o'clock a.m. All led
ers must pass through the Post-Office; any others will be re
graned. NOTICE.—The steamers of this line have improved water

No expense has been spared to make the steamers of this line in all respects as good as new. The thorough examination given them proves their mode of construction yet unequals d. N. B.—Hercafter the regular built ships for this line will permute untire service. FOR LIVERPOOL-PATRIOTIC LINE.-

The new and splendid packet-ship ELLEN AUSTIN.

Wm. H. Garrick, commander, will have immediate dispatch for the above port. For freight or passage, having survivaled successment accommendations, apply on board, at Pier No. Section River, or to SPOSFORD, TILLETON & Co., No. 28 Broadway.

TARE REDUCED to SOUTHAMPTON and 

PRICE OF PASSAGE

Boond Cabin.

Boete delivered in London and Paris.

For passage or freight, apply to

D. TORRANCE, Agent.

No. 5 Rowling-green, New-York.

Basters for England and Europe, propoid, each E cease por

smo-half ceance (by incicours of postage stamps if from other
cities), will be received at No. 5 Bowling-green, New-York, up
to Hè o'ciock of the morning of saiting.

Steambonts and Mailroads.

FOR SHREWSBURY, HIGHLANDS, OCEAN HOUSE, LONG BRANCH, PORT WASHINGTON, MPDLETOWN, FAIR HAVEN and RED BANK.—The new, magnificent and swift steamer AliCE PRICE, John Berden commander, will run regularly as follows, from Robinson-st, N. R.:

NDEPENDENT LINE between NEW-YORK 

W.H. BYRAM, Agent on the Wash.

EXCURSION for the MILLION.—

SEVATEN ISLAND FERRY.

SEVEN MILES FOR SIX CENTS.

The Staten Island ferry-boats JOSEPHINE and SOUTHFIELD leave every hour, from the foot of Whitehallet (between the Sattery and South Ferry), from 8 a. m. till 7 p. m.,
and on fine Sundays every half-hour until 8 p. m., landing at
Quarantine, Stapleton and Vanderbit Landing. This sail on
the Bay afords the finest view in the world.

HUDSON RIVER RAILROAD.-From May 25, 1877, trains will leave Chambers-et. Station as follows:
Express trains, 6 a.m. and 5:18 p.m. Albany Passenger trains,
9 a.m., 12 m. and 5:30 p.m.; for Sine. Sing, 19:15 a.m. and 4 p.m.;
5:20 p.m.; for Sine. Sing, 19:15 a.m. and 4 p.m.;
5:20 p.m.; for Sine. Sing, 19:15 a.m. and 4 p.m.;
6:20 p.m.; for Peekskill, 5:30 a.m.;
7:20 p.m.; for Peekskill, 5:30 a.m.;
7:20 p.m.; for Peekskill, 5:30 a.m.;
7:20 p.m.; for Peekskill, 5:30 p.m.;
8:20 p.m.; for Peekskill, 5:30 p.m.; for Peekskill, 5:30 p.m.;
8:20 p.m.; for Peekskill, 5:30 p.m.; for Peekskill, 5:30 p.m.;
8:20 p.m.; for Peekskill, 5:30 p.m.; for Pee

FOR PORT MONMOUTH, MIDDLETOWN A and Shrewebury, landing at FortHamilton each way.—The swift steamboat MAZEPFA, Capt. Chas. Morford, leaves New-York, from foot of Murray street, daily, at \$9 o'clock a. m. Returning, will leave Port Monmouth at 3 o'clock p. m. Fare 25

DENNSYLVANIA RAILBOAD

The Pennsylvanis Rairond connects at Pittaburgh with redicated to and from St. Louis, Mo.; Alton, Gelena and Chicago, I. Frankfort, Lexington and Louisville, Ky.; Terre Haute, March, Lexington, and Louisville, Ky.; Terre Haute, March, Lexington, Lasyvette and Indianapolis, Ind.; Cincientati, Dayton, Spaingfeld, Beliefontaine, Sandasky, Toledo, Cieveland, Ochanbue, Zamesville, Massilhon and Wooster, Ohio; also, with the them packet books from and to New-Orienna, St. Louis, Louis, Louisemparcher, Cincientation, the St. Louis, Louisville and Cincientation route between the East and Weat.

Through Tickets for the East and Weat.

TROM NEW-YORK TO CINCINNATI IN 38 HOURS.

TROM NEW-YORK TO ST. LOUIS IN 68 HOURS.

Through Tickets or further information, may be had at the Charlest of the PENNSYLVANIA RAILROAD.

No. 2 Ager House, Broadway.

J. L. Elliott, Agent.

## Water-Enre.

MT. PROSPECT WATER CURE, Bingham-M ton, 8 hours' ride from the city by N. Y. & E. R. R. This lastitute presents peculiar facilities for Winter treatment. Pa-licuts required at reduced rates. Address J. H. North. M. D.

## Medical.

HEALING BY MAGNETISM.—
The celebrated healing medium, Miss GRACE A DAVIS,
from Weskepen, Iff. has taken up her residence at DE. O.
6. WELLINGFYON'S Water Cure Establishment, No. 54 East
12th-st., N. Y., and is prepared to operate for lass care of all dissace. She has appair and writes under influence and gives to be. CANDS' SARSAPARILLA.-The original and be Circuistion and the Howers, and gently stouclates, while disengages and expels from the system all that is irritat Breliadied to the bedily health. Prepared and sold by D. SANDS, Druggists, No. 100 Fulletist, New York.

HELMBOLD'S EXTRACT of BUCHU! HELMBOLD'S Extract of Buchu cures Gravel. HELMBOLD'S Extract of Buchu sures Diseases of the Kid-

BELMHOLD'S Extract of Buchu cures Dropey.

HELMHOLD'S Extract of Suchu for general Weaknesses
HELMHOLD'S Extract of Buchu for all diseases exist hom Excesses. HELMBOLD'S Extract of Bucho for all discores arising Bom Exposure. HELMBOLD'S Extract of Buchs for all diseases arising

HELMBOLD'S Extract of Buchu for Secret and Delical HYLMBOLD'S Extract of Bushu is taken by male and for HELMBOLD'S Extract of Buchu for Less of Memory, HELMBOLD'S Extract of Buchu for Less of Power, HELMBOLD'S Extract of Buchu for Universal Lassitude

HELMHOLD'S Extract of Buchu for Nervous and Debilitated
the Muscalar System.
HELMHOLD'S Extract of Buchu for Diracese of Vision.
HELMHOLD'S Extract of Buchu for Difficulty of Breathing.
HELMHOLD'S Extract of Buchu for Weak Nervous and

frembling.
HELMBOLD'S Extract of Buchn for Wakefulness.
HELMBOLD'S Extract of Buchn for all Distressing

ments.

HEDMBOLD'S Extract of Buchu, price \$1 per bottle, different of any address. Address letters.

H. T. HELMBOLD, Chemist.

Dupot, No. 52 South 10th-st., below Chestnut-st., Philadelphis

Bold by Druggista and Dealers everywhere. Beware counterfairs. Cures committee. erfeits. Cures guaranteed. HEGEMAN, CLARK & Co., Azents, Broadway, N. Y.

#### Legal Notices.

IN PURSUANCE of an order of the Surregate IN PURSUANCE of an order of the Surregas of the County of New York, Notice is hereby given to persons having claims against ANDREAS TEVN, late of the City of New York, grocer, deceased, to present the same, with wonders thereof, to the subscriber, at the store of S. & ASCHABBEHAR, No. 223 Mudson-st., in the City of New York on or before the twenty-sixth day of September next.—Date New York, the 25d day of March, 1857.

MATHIAS HOPKE,
CARLE. SCHABBEHAR,
EXCEDIBLE SCHABBEHAR,
EXCEDIBLE SCHABBEHAR,

IN PURSUANCE of an order of the Surrogate
of the County of New-York, notice is hereby given to all
persons having claims against CHARLES F. WOOSTER, late
of the City of New-York, Captain in the United States Army,
deceased, to present the same, with vouchers thereof to the
subscriber at her residence, No. 186 Atlantic-street, in the City
of Brooklyn, N. Y., on or before the thirtieth day of November
next—Dated New-York, the twenty-fifth day of May, 1857.
my26 lawfur MARIA STEBBINS, Administratrix.

MARIA STEBBINS, Administratrix.

SUPREME COURT—COUNTY OF QUEENS.

JOHN BARRY, Plaintiff, against ANNIBAL DE MOSQUERA, ANDREW LAWRENCE, JOSEPH A. LAWRENCE and RICHARD BUSH, Defendants.—Summons for
RENCE and RICHARD BUSH, Defendants.—Summons for
relief—To the Defendants above named and to each of them:
You are bereby summoned and required to answer the complaint
in this action, which is filed in the Office of the Clerk of the
County of Queens in the Town of Jamaica in the said County,
and a copy whereof is herewith served upon you, and to serve a
copy of your sanwer to the said complaint on the subscribers, at
their office, No. 8 Wall street, in the City of New York, within
twenty days after the service of this cummons on you, excluding
of the day of such service; and if you fail to answer the said
complaint within the time aforesaid, the plaintiff in this action
will apply to the Count for the relief demanded in the said complaint. Dated July 21, A. D. 1857.

SE ISWIGWTH

CULDPEME COULDT—Counts of Kings—PETER

SUPREME COURT, CITY and COUNTY of NEW-YORK.—Silvemus Bedeil agi. Ann Swan, Daniei Godwin and Charlotte Godwin his wife, in her own right and as executrix of Samuel Swan, deceased, Silas Constant and Caro line R. his wife, Charles H. Swan and Edma J. his wife Emma Anns Swan, Airred F. Swan, John Swan and Elima his wife, Jehn F. Veeder, William H. Pophars, Mark Speacer, William Johnson, Joseph Oliver, Frances S. Morgan, Frederick Hornby, Samuel T. Roberts, and George Lovett —Summons for Relief.—(Com. not ser.)—To the defendant JOHN WMAN: You are hereby summoned and required to answer the complaint is this action, which was field in the office of the Clerk of the Gity and Geomy of New-York, at the City Hall in the Gity of New-York, on the Wh day of July, 1897, and to serves every of your answer to the said complaint on the subscribers at their office. No. 228 Broadway, in the City of New-York, within twenty days after the service of this ammons on you, exclusive of the day of such service; and if you full to answer the said complaint within the time aforesaid, the plaintiff in this action will apply to the Court for the relief demanded in the complaint.—Dated Joly 9th, 1837.

VAN ANTWERP & JAMKS, Plaintiffe Attorneys.

STATE OF NEW-YORK, SECRETARY'S OFFICE, §

23 Broadway, N. T.

STATE OF NEW-YORK, SECRETARY'S OFFICE,
ALBANY, August 31, 1857.

TO the SHERIFF of the COUNTY of NEWYORK-SIR: Notice is hereby given that at the General
ELECTION to be held in the State, ou the TUESDAY su
ceeding the first Monday of November next, the following offi ers are to be elected, to wit:

A SECRETARY OF STATE, in the place of Joel T. Head

A COMPTROLLER, in the place of Lorenzo Burrows; An ATTORNEY-GENERAL, in the place of Stephen

A STATE ENGINEER and SURVEYOR, in the place of Silas Seymour:
A STATE TREASURER. to the place of Stephen Clark:
A CANAL COMMISSIONER, in the place of Henry Fitz

An INSPECTOR of STATE PRISONS, in the place of Nor A JUDGE of the COURT of APPEALS in the place of Hiram Derio;
All whose terms of service will expire on the last day of De

cember next.

Also, two JUSTICES of the SUPREME COURT for the First
Judicial District, in the place of William Mitchell, whose term
expires Dec. 51, 1857, and one in place of Charles A. Peabody,
appointed to fill vacency occasioned by the resignation of James

Whiting.
Two JUNTICES of the SUPERIOR COURT, in the piaces
JOSEPH S. Bosworth and Thomas J. Oakley, deceased
A JUDGE of the COURT of COMMON PLEAS, in the place
of Daniel F. Ingraham.
A JUSTICE of the MARINE COURT, in place of Florence

Also, a SENATOR for the Fourth, Fifth, Sixth and Seventh mate Districts, consisting of the City and County of New-

Allo, a SENATOR for the Fourth, Filth, Sixth and Seventer Scrate Districts, consisting of the City and County of New-York.

A MEMBER of ASSEMBLY for each of the Assembly Districts in the City and County of New-York, viz.: The First, Second, Third, Fourth, Filth, Sixth, Seventh, Eighth, Ninth, Tenth, Eleventh, Twelfth, Thirteenth, Fourteenth, Fifteenth, Bixteenth and Seventeenth Assembly District.

A SURROGATE, in place of Alexander W. Bradford.

A RECORDER, in place of James M. Smith.

A DISTRICT-ATTORNEY, in place of John J. Doane.

All whose terms of office will expire on the last day of December next.

Yours, respectfully,

J. T. HEADLEY, Secretary of State.

Sheriff of the City and County of New-York.

Sheriff of the City and County of New-York.

All the public newspapers in the county will publish the above once in each week until the election, and then hand in their bills for advertising the same, so that they may be laid before the Board of Supervisors, and passed for payment. Servised Statutes, vol. 1, chap. 6, title 3, article 3d, part 1st, page 140.

# New-York Daily Tribune

ONE CAUSE OF OUR INDIAN TROUBLES.—It is we ONE CAUSE OF OUR INDIAN IROUBLES.—It is wet known by the settlers on our northern frontier that whicky is at the bottom of most of the difficulties tha have occurred among the Chippewas, and that the acts of the drunken Indians who murdered the German pedlar, who drove Mr. Breck from the mission at Leech Lake, and who are engaged in frequent quarrels among themselves and depredations upon the whites, are not countenanced by the Chippewa Chief, Hole-in-the-dawn, or by the Chippewa nation at large, Indians will drink to intoxication as often as they get a chance, and a drunken savage is a dangerous ania chance, and a drunken savage is a dangerous and mal. The statutes of Minnesota make it a peniten-tiary offense to furnish liquor to the Indians. Notwithstanding, there are white men who make

money by selling them whisky, receiving a high price therefor, paid in the gold which the Indians receive in

At the late payment there was a general drunke scene at its conclusion. "Only two or three Indians were killed," and one white man stabbed. Two or three more Indians were reported killed a short time afterwards, and the days of the payment were de scribed by a man who was present, as having passed "very pleasantly and agreeably," although from four to seven were killed." [St. Paul Advertiser.

A TUBULAR BRIDGE OVER THE NIAGARA. A Tubular Bridge Over the Nisorra.—The Roule of the Great Western Railway Company have now determined upon immediately erecting an iron bridge on the tubular or girder principle, over the Nisgara River—the present bridge, owing to the slow rate of speed at which trains can be permitted to peross it, being quite insdequate to meet the requirements of the enormous traffic daily president over that frontier. The cost is traffic daily passing over that frontier. The cost is between \$500,000 and \$750,000. At present the rate of

between \$500,000 and \$750,000. At present the rate of speed must not exceed two miles an hour, but with the new bridge forty miles an hour may be run with perfect safety. It is contemplated to be ready for opening in the course of next Summer, the site of the bride being the gorge below the whirlpool.

REVIVAL ANONG THE NEGROES.—The Lynchburg (Va.) Course says; "One of the effects of the great revival among the eclored people has been the establishment of a regular system of prayer-meetings for their benefit. Meetings are held every night during the week at the tobacco factories, the proprietors of which have been kind enough to place those edifices at the disposal of the celored bushnen. The overseers of the several factories preside over these meetings, and the most absolute good covered is cabibited."

NEW PUBLICATIONS.

SCIENCE IN THE HOUSEHOLD. THE HAND-BOOK OF HOUSEHOLD SCIENCE. By FOWARD L. YOUNANS. 12me. pp. 468. D. Appleton & Go.
Among the numerous claims of Dr. Franklin to the character of a benefactor of humanity, his labors in increasing the efficiency, convenience, and economy of the indispensable processes of the household hold a distinguished rank. His example gaves powerful impulse to the cause of popular science, and, followed up with energy and sense by the celebrated Count Rumford, has prepared the way for the services of later philosophers, who, in the true spirit of the Bacconian method, have applied the forces of nature to the uses of practical

Mr. Youmans is an eminent representative of this school of physical inquirers. He possesses a genuine love of science for its own sake; he is ardent in the investigation of theory as a hint for experiment; he is singularly lucid in his exposition of first principles; but the application of discovery to the common purposes of life is his favorite pursuit. In the present volume, he has embodied the fruits of profound and extensive studies. He has brought the subject up to the latest dates of investigation, combining his own knowledge with the massive steres of his predecessors. Of course, in a work of this kind, originality is less the aim, than accuracy and completeness. But Mr. Youmans always gives the stamp of his own mind to the information which he communicates. His manner is as individual as it is attractive. He is remarkable for the neatness and compact brevity of his statements, though he never escrifices lucidity to his love of compression. His method is pervaded by a healthy common sense. He nows what ought to be said on the point under discussion, he knows how to say it, and more than all, having said the right thing, re knows how to stop. His illustrations are apt and forcible. His examples are taken from the line of every-day experience, and hence make a deep impression on the mass of readers. His work is intended for a manual of education, as well as a book of reference for adult students. But on this point his own remarks are so appropriate that we must give them a liberal space in our columns.

point his own remarks are so appropriate that we must give them a liberal space in our columns.

When a work is presented, claiming place in a systematic course of school study, two questions at once arise in the mind of the discriminating educator; first, what is the nature, rank, and value of the knowledge it imparts? and, second, what will be its general influence upon the mind of the student? In this twofold connection there are some thoughts to which we solicit the reader's carnest and considerate attention.

The present volume has been prepared under a conviction that the knowledge it communicates is first in the order of importance among things to be considered by rational and civilized people. "Every man's proper mansion house and home," says Sir Henry Wotton, "is the theater of his hospitality, the seat of self-fruition, the comfortablest part of his own life, the noblest of his son's inheritance, a kind of private princedom; nay, to the possessors thereof an epitome of tile whole world." Nothing needs to be added in culcey of the household home, the piace of life's purset pleasures and sweetest experiences, the perpetual rallying point of its hopes' and joys. Whatever can render it more pleasant or attractive, or invest it with a new interest, or in any way improve or ennoble it, is at once commended to our sympathy and regard. To consider all the agencies which influence the course and character of household life, is far from the object of the present work. Our concern is chiefly with its more material circumstances and conditions. That we should understand something of the wonderful physical agencies which have control of our earthly being, and which are so incessantly illustrated in the dwelling, and be at least partially acquainted with those fixed natural ordinances upon which our daily welfare, comfort, health, and even life, immediately depend, must certainly be acknowledged by all. One of the most startling facts of man's history is, that, placed in a world of immutable order, and endowed with depend, must certainly be acknowledged by all. One of the most startling facts of man's history is, that, placed in a world of immutable order, and endowed with such exalted gifts of understanding and reason, he should yet have contrived to maintain so dense and perfect an ignorance of binuself and the familiar objects by which he is surrounded. That exact knowledge of the ways of nature which puts her powers at human command, and bears the daily fruit of substantial improvement and universal beneficence, would seem to be the last and noblest achievement of mind; so the property of long it tellectual growth, the highest form seem to be the last and noblest achievement of mind:
a fruition of lorg intellectual growth, the highest form
in the latest time, after the preliminary and preparatory experience of ages. In its earlier strivings we
observe the mind of man intently occupied with itself,
and regarding material nature with unutterable disdain. It wandered simless and dissatisfied in the
misty regions of speculation. Its first great conquest
was in the realm of abstraction, farthest removed
from the vulgarities of mere matter—the discovery of
mathematical principles. The earliest application of
thought to physical subjects was away in the distant
otheres, where imagination had reveled wildest from thought to physical subjects was away in the distant spheres, where imagination had reveled wildest from immemorial time, to the luminous points and mysterious movements of the heavens, which, according to Plato, were most admirably fitted to illustrate geometric programments of the second statement of the second sta Thato, were most admirably litted to indistrate geometry. The skies were mapped and charted long before the earth. Copernicus struck out the grama law of celestial circulation before Harvey discovered that of the blood. The genius of Newton flashed an immortal light work the market of the structure of the struc the blood. The genius of Newton flashed an immortal light upon the mechanism of the universe many years before Rumford began his humbler domestic investi-gations. Centuries have passed since the establish-ment of universal gravitation, while there are men now living who may recollect the most gigantic stride of nving who may recollect the most gigantic stride of modern science, the discovery of oxygen gas by Priestley, and the earliest analysis of the air we breathe. Chemistry, which is the name given to the first serious grappling of human intelligence with all forms of common matter, belongs chiefly to our own century. This too, has been progressive, and in its course has conformed to the general law we are indicourse has conformed to the general law we are indicating. Its cariiest investigations were directed to inert mineral substances, stones and rocks; while the formal and systematic elucidation of those conditions and phases of matter in which we have the deepest interest—vegetable and animal compounds and processes, agricultural, physiological and dietefical chemistry—is eminently an affair of our own day. Thus, the spirit of inquiry, at first recoiling from matter, and circling wide through metaphysical vacuities, gradually closed with the physical world, and now finds its last and highest inquest into the material conditions of man's daily life. The course of knowledge has been expansive, as well as progressive; from narrow view-to universal principles; from empty speculations to world-wide utilities; from the pleasure of a few to the advantage of the many; from utter ignorance and the advantage of the many; from utter ignorance and contempt of nature, to the revelation of all-embracing laws, and a beautiful and harmonious order in the commonest objects and operations of daily experience. commonest objects and operations of daily experience. To the truth of this general statement, the existence of the present book may be taken as a strong attestation. The mass of its facts and principles are the result of recent investigation. A hundred years ago such a work would have been, in all its essential features, a blank impossibility; indeed, it had lacked its richest materials if prepared for the last generation.

These facts should not be without their influence upon the scheme of popular education. It is its first

These facts should not be without their influence upon the scheme of popular education. It is its first duty to communicate that information which can be reduced to daily practice, and yield the largest measure of positive good. If recent inquiry has opened new treasures of available truth, it is bound to take charge of them for the general benefit. It must report the advance of knowledge, and keep pace with the progress of the human mind, or it is false to its trust. The subjects of study should be so modified and extended as to afford the largest advantage, intellectual and practical, of the labors of the great expounders of nature—especially in those departments where knowledge can be made most useful and improving. A rational and comprehensive plan of education for all classes, which shall be based upon man's intrinsic and essential wants, and promptly avail itself of every new view and discovery in science, to enof every new view and discovery in science, to en-lighten him in his daily relations and duties, is the ur-gert demand of the time. Nor can it be always evaded. We are not to trundle round for ever in the old ruts of thought, chinging with blind fatuity to crade schemes of instruction, which belong, where they ori; inated, with the bygone ages. He who has surren-dered his life to the inauties of an extinct and exploded mythology, but who remains a stranger to God's administration of the living universe; who can skill-fully rattle the skeletons of dead languages, but to whom the page of nature is as a scaled book, and her voices as an unknown tengue, is not always to be plumed with the supereminent designation of "edu-

ated."
There are many things, unquestionably, which it would be most desirable to study; but opportunity is brief, and espacity limited; and the acquirition of one thing involves the exclusion of another. We cannot learn everything. The question of the relative rank of various kines of knowledge—what shall be held of primary importance and what subordinate—is argent and health are the first of all primary important and health are the first of all blessings, to maintain them is the first of all duties, and to understand their conditions the first of mental re.

quirements. Shall the thousand matters of mere disant and curious concernment be suffered to hold presedence of the solemn verifies of being which are woven into the contexture of familiar life! The physical agents which perpetually surround, and act upon and within us, heat, light, air and aliment, are liable to perversion through ignorance, so as to produce suffering, casease and death; or they are capable through knowledge of promoting health, strength and enjoyment. What higher warrant can be asked that their laws and effects shall become subjects of general their laws and effects shall become subjects of general and carriest study? It may seem strange that in regard to the vital interests of life and health, man should be left without the natural guidance of instinct, and be left without the natural guidance of instinct, and be driven to the necessity of reflection and study; that he for whom the earth seems made should be apparently less cared for in these respects than the inferior animals. Neverthelers, such is the divine ordination. Neither our senses, instincts, nor uninstructed faculties are sufficient guides to good, or guards from evil, in even the ordinary conditions of the civilized state. Things which most deeply affect our welfare, the senses fail to appreciate. They can nather discern the properties nor the presence of the most deadly agents. The breathing medium may be laden with noxious gases, to the peril of life, and the senses fail to detect the danger. Hinger and thirst impel us instinctively to eat and drink, but they fail to inform us of the putitive value of alimentary substances or stinctively to eat and drink, but they fail to inform us of the putnitive value of alimentary substances or their dietetical fitness to our varying requirements. For all those things which are independent of man's will, Providence has taken abundant care to provide; while in the domain of voluntary section, blind instinct is replaced by rational forecast. Whatever may have been those original conditions of bare animal existence which tome yet sigh for as the "true state of nature," we are far removed from them now. They have been successively disturbed as, generation after generation, intelligenting unity has been exercised to gain control of natural forces for the securing of comtons and hungries, and to liberate man from the privagain control of natural forces for the securing of com-forts and luxpries, and to liberate man from the priva-tions and drudgeries of the uncivilized condition. But numingled good seems not permitted; the benefits are alleyed with evil. Thus, the introduction of the stove, while affording the advantage of economy and conve-rience in the management of fire, was a step back-ward in the matter of ventilation. Gus-lighting was a great advance on the me hods of artificial illumina-tion, but there came with it augmented contamgreat acvance on the me hods of artificial illumina-tion, but there came with it augmented contam-ination of the breathing medium and new dangers to the eyes. Against these and similar in-cidental mischiefs—"residues of evil" that ac-cumulate against the predominating good—there is no other protection than intellect, instructed in the material conditions which influence our health and life. For these, and kindred con iderations of cractical moment to all who occupy dwellings and as-tune civilized relations, we urge the study of house-ted science as an assential part of general education

It deserves to be better understood, that the highest value of science is derived from its power of advancing the public good. It is more and more to be conscrated to human improvement, as a sublime regenerative agency. Working jointly and harmoniously with the great moral forces of Christian civilization, we believe it is destined to effect extensive social ameliorations. That it is not yet fully accepted in this relation is hardly surprising. The work of presenting rejentific truth in those forms which may best engage the promise mind, is not to be fairly expected of those reientific truth in those forms which may best engage the popular mind, is not to be fairly expected of those who give their lives to its original development. There is a deep satisfaction, an intrinsic compensating interest to the discoverer in the naked quest of truth, which is largely independent of any utility that may flow from the inquiry. In the exalted consciousness of achievement, the man of science finds an intellectual remureration, so royal and satisfying that other considerations have comparatively little weight. Hence the incifference to a great degree inevitable, with which original explorers contemplate the reduction of which original explorers contemplate the reduction of scientific principles to practical use. Moreover, this utter carelessness of results, where the mind is not scientific principles to practical use. Moreover, this utter carelessness of results, where the mind is not biased, nor the vision blurred by ulterior considerations, is far the most favorable for successful investigation. Conscious that the effects of his labors are finally and always beneficial in society, the enthusiast of research may be excused his indifference to their immediate reception and uses. But the formal denial that the allegiance of mind is supremely due to the good of society is quite another affair. The sentiment too widely entertained in learned and educational circles, that knowledge is to be firstly and chiefly prized for its own sake, and the mental gratification it produces, we cannot accept. The vious esems narrow and libberal, and is not inspired of human sympathy. It took origin in times when the improvement of man's condition, his general education and elevation, were not deamed of. It came from the ancient philosophy, which was not a dispensation of popular beneficence, an all-diffusive, ennobling agency in society, but confessed its highest aim to be a personal advantage, shut up in the individual soul. It was not radiant and outflowing like the sum, but drew all things inward, engulfing them in a malstrom of selfishness.

The bareful ethics of this philosophy have given

The baneful ethics of this philosophy have given The banean etnics of this philosophy have given place to the higher and more generous inculcations of Christianity, which lays upon human nature its broad and eternal requirement, "to do good." From this authoritative mo al demand science cannot be exempted. The power it confers is to be held and used as power is exercised by God himself, for purposes of universal blessing.

nuiversal blessing. We place a high estimate upon the advantages We place a high estimate upon the advantages which society may reap from a better acquaintance with material phenomena, for life is a stern realm of cause and effect, fact and law. To the poetic day-dreamer it may be an affair of sentiment, an "illusion," or a "vapor," but to the mass of mankind life is a solid, unmistakable reality, that will not be dissolved into mist and 'cannot be conjured out of its qualities. As such we would deal with it in education, giving prominence to those forms of knowledge which will work the largest prestical alleviations and most substantial improvement throughout the community. But it is wisely designed that those studies was become in the highest degree useful are munity. But it is wisely designed that those studies which may become in the highest degree useful are also first in intellectual interest. It is a grievous mistake to suppose that the study of natural science martyrizes the more ethereal faculties of the soul, and tyrizes the more ethereal faculties of the soul, and dooms the rest to painful toil among the naked sterilities of commorplace existence. So far from being unfriendly to the imagination, as is sometimes intimated, science is its noblest precursor and ally. Can that be unfavorable to this faculty which infinitely multiplies its materials, and boundlessly amplifies its scope? Can that be restrictive of mental sweep which unlocks the mysteries of the universe and pioneers its way far into the councils of Omniscience? Who was it that lifted the vail, and disclosed a new world of exquisite order and beauty in all the commonest and vulgarest into the councils of Ommscience? Who was it this lifted the vail, and divelosed a new world of exquisite order and beauty in all the commonest and vulgarest forms of matter, below the former reach of eye or thought? Who was it that dissipated the fabulous "firmament," which primeval ignorance had mounted over its central and stationary earth; set the world in motion, and unfolded a plan of the heavens, so appalling in amplitude that imagination itself faiters in the survey? Who was it that first read the handwriting of God upon the rocks, revealing the history of our planet and its inhabitants through durations of which the mind had never before even presamed to dream? In thus unscaling the mysteries of being—in turning the commonest spot into a museum of wonders—who can doubt that reience has opered a new and splendid eareer for the play of the diviner faculties; and that its purcuit affords the most exhibitanting as well as the healthiest and purest of intellectual enjoyments? Nor should we forget its elevating tendencies; for in contemplating the varied scheme of being around, its should we forget its elevating tendencies; for in con-templating the varied scheme of being around, its beauties harmonies, adaptations, and purposes of pro-foundest wisdom, the thoughts ascend in unspeakable admiration to the infinite Source of truth and light. We should educate and elevate our nature by these studies, storing our minds with the richest materials of thought, calarging our capacities of benign exertion, and rising to a more intimate communion with the spirit of the Great Maker of all.

and rising to a more intimate communion with the spirit of the Great Maker of all.

There is still another thought in this connection which it is important should be expressed. It has been too much the policy of the past so to train the mind as to enslave, rather than to arouse it. Education, from the earliest time, has been under the patronage of civil and ecclesiastical despotisms, whose necessary policy has been the repression of free thought. The state of mind forever insisted on has been that of submissive acceptance of authority. Instead of laying open the limitations, uncertainties, and conflicts of knowledge which arise from its progressive nature, the spirit of the general teaching has been that all things are settled, and that wisdom has reached its last fulfillment. Instead of ercouraging bold inquiry, and inciting to noble conquest, the effect has rather been to reduce the student to a mere tame, unquestioning recipient of established formulas and time-honored degmas. It is obvious on all sides that this state of things has been deeply disturbed. The introduction of Republicanism, with political freedom of speech and action; the advent of Protestantism, with religious liberty of thought; and the splexidid march of science, which has enlarged the circle of knowledge, multiplied the elements of power, and scattered social and industrial revolution, right and left, for the last hundred years—these new dispensations have invaded the old repose, and fired the minds of multiplied with a new consciouscess of power. Yet we cannot forget that our education still retains much of invaded the old repose, and fired the minds of multi-tudes with a new consciousness of power. Yet we cannot forget that our education still retains much of its ancient spirit, is yet largely scholastic and arbi-trarily authoritative. We believe that this evil may be, to a considerable degree, corrected by a frank admission of the incompleteness of much of our knowl-edge; by showing that it is necessarily imperfect, and that the only just and honest course often involves reservation of opinion and suspension of judgment. This may be consonant neither with the teacher's pride nor the pupil's ambition, nevertheless it is im-peratively demanded. We need to acquire more humility of mind and a sincerer reverence for truth; humility of mind and a sincerer reverence for truth; humility of mind and a sincerer reverence for knowledge to understand that much which passes for knowledge is unsettled, and that we should be constant learners

well as the school room, teach far other leasons. We are committed in early childhood to blind particanships—political and religious—and drive on through life in the unquestioning and unscrupulous advocacy of doctrines which are quite as likely to be false as true, and are perhaps utterly incapable of honest definitive adjustment. Science inculcates a different spirit, which is most fercibly illustrated in those branches where absolute certainty of conclusion is difficult of attainment. Mr. Paget has urged the salutary influence of the study of philosophy in this relation. He says, "It is a great bindrance to the progress of truth, that some men will hold with equal tenacity things that are, and things that are not, proved; and even things that, from their very nature, do not admit of proof. They seem to think (and or the equal tenacity things that are, and things that are not, proved; and even things that, from their very nature, do not admit of proof. They seem to think (and ordinary education might be pleaded as justifying the thought) that a plain 'yes' or' no can be answered to every question that can be plainly a-ked; and that everything thus answered is to be maintained as a point of conscience. I need not adduce instances of this error, while its mischiefs are manifested everywhere in the wrongs done by premature and tenacious judgments. I am aware that these are faults of the temper, not less than of the judgment; but we know how much the temper is influenced by the character of our studies; and I think if any one were to be free from this over-zeal of opinion, it should be one who is early instructed in an uncertain science such as physiology." In the present work, the chief statements comprised under heat, light and air may be regarded as settled with a high degree of certainty, while much of the matter relating to food and its effects is less clearly determine; its truth is only approximative, and we have stated it as such without hesitation. While the reader is informed, he is at the same time apprised of the incompleteness of his knowledge.

have stated it as such without hesitation. While the reader is informed, he is at the same time apprised of the incompleteness of his knowledge.

An important result of the more earnest and general pursuit of science by the young will be to find out and develop a larger number of minds having natural aptitudes for research and investigation. As there are born poets and born musicians, so also there are born inventors and experimenters—minds originally fitted to combine and mould the plastic materials of nature into numberless forms of usefulness and value. It is a vulgar error that the work of discovery and improvement is already mainly accomplished. The thoughtful well understand that man has hardly yet entered upon that magnificent career of conquest, in the peaceful domain of nature, to which he is destined, and which will be hastened by nothing so much as a more general kindling of the minds of the young with enthasiasm for science. The harvest awaits the respers—how strange that man should have neglected it so long. Fuel, air, water, and the metals, as we see them acting now in the living, laboring steam engine, have been waiting from the foundation of the world for a chance to relieve man of the worst drudgeries of toil. Long and fruitlessly did the sunbeam court the opportunity of leaving upon the earth permanent impressions of the things he revealed; while the lightning, though seemingly a lawless and rollicking spirit of the skies, was yet impatient to be pressed into the quiet and useful service of man. Can there be a doubt that other powers and forces equally potent and marvelous await the discipline of human genius? Not in vain was man called upon, at the very morning of creation, to "subdue the earth." Already has he justified the bestowment of the viceroyal honor; who shall speak of the possibilities that are waiting for him in the future!

The matter of which this volume is composed is arranged under the heads of Heat, Light. Air,

The matter of which this volume is composed is arranged under the heads of Heat, Light, Air, Aliment, and Cleansing, to each of which an ample discussion is given, explaining the principles of a thousand familiar phenomena, and suggesting rules of comprehensive import in the whole sphere of domestic and social economy. Mr. Youmans is a great advocate of light. Con-

trary to the fashionable taste, which rejoices in a "dim, irreligious" gloom, obscuring the countenences of friend and foe alike, and converting the place of social reunion into a cellar above ground, he goes in for the largest supply of the genial element, and looks upon the sun as the jelly sire of a rich share of human happiness. Light is the best stimulus to the nervous system. There is nothing like sunshine to make the blood circulate freely and give buoyancy to the spirits. In the bright light of day the body gains strength-all its functions assume a natural tone, a fresh bloom is given to the cheek, and we expand in the consciousness of reinvigorated health. But in an artificial condition of society, artificial light becomes indispensable. This comes, in all cases, from burning gas. We use those materials for lighting which in burning produce flame; and flame is nothing but gas in combustion. No substance can be used for light which cannot be turned into gas. The process is the same, whether we burn the gas which is brought to our houses in pipes, or the liquid oil, or solid spermaceti, wax, lard, or tallow. In the first instance, the gas is made on a large scale previous to use; in the latter, the material is converted into gas at the time of burning. But, in each method, the light comes from a stream of gas which is lighter than the air, and therefore tends to ascend. The common candle is not without its mystery, which Mr. Youmans well clucidates. If you should try to burn a solid red of wax or tallow, with the hope of lighting your room, you would get your labor for your pains. In the first place, you would find it hard to set it on fire. It would melt away long before it could ignite. But if at last you had got it to burn, more of the substance would be on fire than the air could perfectly consume. You would, therefore, have a thick smoky flame instead of a clear white light. You must then use some contrivance to regulate the combustion, and prevent too much of the material from getting on fire at once. Place a few twisted fibers of cotton in the center of the rod, and the work is done. You have then a wick which, when you light it at one end, sends down its heat melts the wax, and forms a hollow cup around itself, filled with a combustible liquid. From this reservoir the wick draws up the melted wax to the center of the flame by what is called capillary attraction. Here, in a heat like Nebuchadnezzar's furnace, and cut off from the air, it meets with a change precisely like that of the material in the gas-maker's retort, and is converted into gas. The flame is a hollow cone of fire. The space is filled with illuminating gas, manufactured on the spot from the wax of the candle and drawn up, as just shown, by the wick. As the candle burns down, the wick rises into the flame. In a short time, it presents too much material for combustion, and impairs the light. Specks of unburned carbon are gradually deposited on the wick, forming a large, spongy snuff, which nearly extinguishes the light. This effect is perhaps greater than is commonly supposed. If you call the intensity of the light from a freshly-snuffed candle 100, and leave it without being snuffed, in 4 minutes the brightness will be reduced to 92, in 10 minutes to 41, and in 40 minutes to 14, although the consumption of the candle remains the same. In wax and spermaceti candles, the wick may be made so slender as to bend over to the side of the flame, and be consumed on coming in contact with

the air. In regard to camphene lamps, Mr. Youmans gives some directions that are worthy of universal attention. Camphene is rectified spirits of turpentine, or the product of the distillation of turpentine pitch, separated by repeated processes as completely as possible from resinous matter. It differs not only from the common illuminating substances in liquidity, but in its powerful pungent odor, and in its chemical composition, containing no oxygen and a very large proportion of carbon. Hence, burned in the ordinary way, it gives out too much smoke, and should be used only in lamps so constructed as to supply the flame with a large and powerful draught of air, in order to effect the complete combustion of the elements. It burns with a fisme much brighter and whiter than tallow, wax, or spermaceti, displaying the natural colors of pictures, flowers, or other objects, much more perfectly than the light of candles or of oil. Xet, tor to society. Strongh life. The active influences of seciety, as

though more luminous, the campbene flame is smaller than the oil fisme, on account of the absence of oxygen. On the other hand, camphene comists of purely combustible matter, burns intensely, and contains nothing to retard the activity of the burning process. If exposed to the air it soon spoils, as it belongs to the class of essential oils which, by combination with oxygen, are changed into substances of a resinous nature. It should therefore be procured in small quantities, fresh from the manufacturer, and carefully preserved in tight vessels.

The combination of camphene with alcohol forms what is known as burning fluid. This is preferred to pure camphene, as it is not liable to smoke. Aicehol has so little carbon, that when burned alone it produces only a feeble bluish white light. It has too much hydrogen, just the opposite fault of camphene, which has too much carbon. Hence, when mixed, they form a compound which supplies the deficiencies of both, yields an excellent light, and may be burned in lamps of the simplest construetion. This mixture is commonly burned with wicks, but it can be used in a lamp so constructed that the liquid is vaporized by the heat of the burner, and escaping in jets is burned without a wick, like common gas. The dreadful accidents, of which you so fre-

quently read in our columns, occurring from the use of camphene and burning fluid, are easily explained. Both spirits of turpentine and alcohol are very volatile, that is, when exposed to the air or not confined, they rapidly evaporate or rise into the gareous state. The fluid in a lamp, as it is gradually consumed, has its place supplied by vapor which rises from the upper space. So with all vessels that are partially filled with the liquid. The vacant space becomes filled with vapor, which being mixed with air, on contact with the slightest spark or flame, ignites with a sudden explosion. This sets fire to the burning fluid, which in itself is highly inflammable, and thus the most disastrous consequences often ensue. Most accidents that occur in this manner proceed from attempts to fill a lighted lamp. The vapor of the opened lamp or can takes fire from the flame, it explodes with more or less violence, sets the liquid on fire, and burns whatever it touches. The lamp, moreover, is liable to explosion from heating the vapor, unless there are openings for its escape. A safety lamp has been invented for burning fluids, on Sir Humphrey Davy's principle, which is highly commended in this volume The portion of the work devoted to Air is full

of valuable instruction, which scarcely can be too often urged on the attention of the public. The pressure of atmosphere on the body of a mediumsized man is equal to a weight of 30,000 lbs., which, were it not resisted by an equal atmosphere from within, would instantly crush the strongest frame in o atoms. One pound of air measures about 134 cubic feet. A room 8 feet high, 12 wide, and 13 long, contains about 100 lbs. of air; and a room 40 feet square and 18 feet high contains about a tun. But the pressure of air on the body is not the same at all times. Every alteration of an inch in the mercury of the barometer adds or removes a weight of 1,080 from the average weight which a man of common stature sustains. The effects of sudden charge in the atmospheric pressure are often shown in the shape of headache and apoplexy. The impurities of the atmosphere are the secret cause of a great variety of diseases. The decay of organic matter, vegetable and animal, generates numerous substances which are prejudicial to health. The air is the grand reservoir into which all velatile matters escape, many of them bearing the principles of contagion and pestilence. But we are not without the means of avoiding this danger. The salubrity of the air is promoted by elevation. The open hill top insures atmospheric purity in ordinary cases. A rise of sixteen feet within three bundred yards has been known to produce an entire change from a relaxing to a bracing air. The common belief is correct that night-air is less healthful than that of day. Tropical fevers are most fatal in the night. Yet the miasma which produces them is generated with the greatest rapidity during the intense heat of the sun. The reason of this is easily explained. In the daytime, the air, heated rises in an upward current, thus diluting and carrying away the poisonous malaria as fast as it is developed. But at night, in the absence of solar heat, no such force is at work, and the misems are accumulated and condensed in the lower strate of the atmosphere. Hence, the upper stories of a house are less exposed than the ground-floor, and are more eligible for sleeping chambers. During the prevalence of yellow fever in Philadelphia, those who occupied apartments in the third story were far less liable to attack than those who resided lower. Sleeping in low rooms is probably worse in the city than in the country. The atmosphere contains the means of purifica-

cation within itself. When noxious exhalations are set free, they are diffused through the vast volume of the air, and, by the law of geseous expansion, aided by winds and storms, are lost in the universal intermixture. Oxygen finally acts upon them, and burns them up as completely so if they had been consumed in a furnace. Not so within the walls of a dwelling. There the causes of impurity are confined. The air loses a large proportion of its oxygen by being breathed, and receives an equal quantity of poisonous carbonic acid by the same process. The burning of fuel and combus tion for light produce the same effect. Air-tight stoves and hot air furnaces are especially objectionable on this account. Gaseous exhalations of pernicious quality escape from the kitchen. The discoloration of white walls shows that the air bas been contaminated by poisonous sulphuretted bydrogen. In this case, the sulphur combines with the white lead, and forms black sulphuret of lead. White zinc paint is not liable to this change, and hence affords no indication of the state of the atmosphere. Nor is it true, according to the popular belief, that cold air is necessarily pure, and that apartments need less ventilation in Winter than in Summer. Green paper hangings are also danger-cus, and when colored with certain pigments ex-hale deadly, poisonous vapors. Cellars are often sources of disease, and, when filled with decaying vegetables, generate noxious air of the most fatal character, sithough slow in its operation, by reason of the small quantities in which it reaches the occupants of the upper apartments.

The remarks of Mr. Youmans on the means of ventilation in connection with the arrangements for heating apartments, present suggestions of great value to every person about to erect a dwellinghouse. But we have no room to specify the almost countless topics, relating to the daily economy of household life, which are here elucidated by the fertile pen of the author. His work will not only confirm his already high claims to scientific eminence, but, by its application to public health, comfort, and convenience, will stamp him as a benefac-